

**COMPARISON BETWEEN
PANORAMIC AND
PERIAPICAL RADIOGRAPHY
IN THE DIAGNOSIS OF
PERIAPICAL BONE LESIONS**

A Thesis Submitted To
The College Of Dentistry University Of Baghdad
In Partial Fulfillment Of The Requirements For
The Degree Of Master Of Science
In Oral Radiology

By
AMAL RAOUF SHEIR MUHAMMED
B.D.S , H.D.D

Supervised By
Prof. Dr. WIDAD F. AL-SAHHAR

IRAQ- BAGHDAD

2004

ABSTRACT

This study was designed to compare periapical and panoramic radiograph in the diagnosis of periapical bone lesions according to , detection of the lesion , type , size , and site of the lesion.

The diagnostic accuracy of periapical , and panoramic radiographs were compared by five seniors Oral Radiologists , and five seniors Oral and MaxilloFacial surgeons , in which they assessed the periapical status of 110 teeth evenly distributed throughout the jaws of 50 patients , with 50 % probability that either an osteolytic or sclerotic lesions were present.

Inter – examiner , and intra-examiner calibration proved the accuracy of the examiner in detection of the periapical status of the radiographs.

The diagnostic findings were tabulated , and statistical analysis of the results by using student t-test which was performed , and arranged in tables.

The results showed that there was highly significant difference between periapical , and panoramic radiographs in detection of periapical lesions ($p < 0.0001$) , the accuracy rate of periapical radiograph was 100 % while 73% in panoramic radiograph.

According to the type of the lesion , there was non – significant difference between periapical , and panoramic radiographs in detection of sclerotic lesion ($p > 0.05$), while there was significant difference between both radiographs in detection of osteolytic lesion ($p < 0.05$).

According to the size of lesion, in maxillary region the lesion which was less or equal to 1mm in diameter disappear in

in panoramic radiographs , but it appears in periapical radiographs . While , the lesion of more than 1mm in the same region shows a significant difference between both radiographs ($p < 0.05$) .

In mandibular region there was non –significant difference between both radiographs according to the size of the periapical lesion ($p > 0.05$).

According to the site of the lesion the study shows that there was highly significant difference between periapical , and panoramic radiographs in the incisor region ($p < 0.0001$), while there was non –significant difference between both radiographs in the other regions ($p > 0.05$).